Amendments to the Claims

1. (CURRENTLY AMENDED) A RF stage ~~(302)~~ in a wireless station ~~(300),~~ comprising: a detector ~~(504)~~ for detecting a sequence in an incoming signal received by the wireless station ~~(300)~~ and for generating an activation signal in response to detecting the sequence in the incoming signal.

2. (CURRENTLY AMENDED) The RF stage ~~(302)~~ as claimed in claim 1, characterized in that a baseband stage ~~(304)~~ in the wireless station ~~(300)~~ receives the activation signal and transitions from a low power state to an active power state in response to receiving the activation signal.

3. (CURRENTLY AMENDED) The RF stage ~~(302)~~ as claimed in claim 1, characterized in that the detector ~~(504)~~ comprises: a delay ~~(600)~~ for inserting a predetermined time delay into the incoming signal; a correlator ~~(602)~~ for receiving the incoming signal and the delayed incoming signal and for generating a correlated signal; and a peak detector ~~(604)~~ for receiving the correlated signal and for detecting the sequence, wherein the peak detector ~~(604)~~ generates the activation signal in response to detecting the sequence.

4. (CURRENTLY AMENDED) The RF stage ~~(302)~~ as claimed in claim 1, characterized in that the detector ~~(504)~~ comprises: a matched filter ~~(900)~~ having coefficients defined by the sequence and for generating a match signal when the sequence is included in the incoming signal; and a peak detector ~~(902)~~ for receiving the match signal from the matched filter ~~(900)~~ and for generating the activation signal in response to receiving the match signal from the matched filter ~~(900)~~.

5. (CURRENTLY AMENDED) The RF stage ~~(302)~~ as claimed in claim 5, characterized in that the incoming signal comprises a data frame including the sequence and the sequence comprises a Barker sequence.

6. (CURRENTLY AMENDED) The RF stage ~~(302)~~ as claimed in claim 5, characterized in that the incoming signal comprises a data frame including the sequence and the sequence comprises a sequence of OFDM symbols.

7. (CURRENTLY AMENDED) A wireless station ~~(300),~~ comprising: a baseband stage ~~(304)~~ in a low power state when a signal is not received by the wireless station ~~(300);~~ and a RF stage ~~(302)~~ for detecting a sequence in a signal received by the wireless station ~~(300)~~ and for generating an activation signal in response to detecting the sequence, wherein the activation signal is transmitted to the baseband stage ~~(304)~~ to cause the baseband stage ~~(304)~~ to transition from the low power state to an active power state.

8. (CURRENTLY AMENDED) The wireless station as claimed in claim 7, characterized in that the RF stage ~~(302)~~ comprises a receiver ~~(306)~~ for detecting the sequence

in the signal received by the wireless station ~~(300)~~ and for generating the activation signal in response to detecting the sequence.

9. (CURRENTLY AMENDED) The wireless station ~~(300)~~ as claimed in claim 8, characterized in that the receiver ~~(306)~~ comprises a detector ~~(504)~~ for detecting the sequence in the signal and for generating the activation signal in response to detecting the sequence.

10. (CURRENTLY AMENDED) The wireless station ~~(300)~~ as claimed in claim 9, characterized in that the detector ~~(504)~~ comprises: a delay ~~(600)~~ for inserting a predetermined time delay into the signal; a correlator ~~(602)~~ for receiving the signal and the delayed signal and for generating a correlated signal; and a peak detector ~~(604)~~ for receiving the correlated signal and for detecting the sequence, wherein the peak detector ~~(604)~~ generates the activation signal in response to detecting the sequence.

11. (CURRENLTY AMENDED) The wireless station ~~(300)~~ as claimed in claim 9, characterized in that the detector ~~(504)~~ comprises: a matched filter ~~(900)~~ having coefficients defined by the sequence for receiving the signal and for generating a match signal when the sequence is included in the signal; and a peak detector ~~(902)~~ for receiving the match signal from the matched filter ~~(900)~~ and for generating the activation signal in response to receiving the match signal from the matched filter ~~(900)~~.

12. (CURRENTLY AMENDED) The wireless station ~~(300)~~ as claimed in claim 7, characterized in that the signal comprises a data frame including the sequence and the sequence comprises a Barker sequence.

13. (CURRENTLY AMENDED) The wireless station ~~(300)~~ as claimed in claim 7, characterized in that the signal comprises a data frame including the sequence and the sequence comprises a sequence of OFDM symbols.

14. (CURRENTLY AMENDED) A method for detecting a sequence in a signal received by a wireless station ~~(300),~~ comprising the steps of: detecting the sequence in a RF stage ~~(302)~~ in the wireless station ~~(300);~~ and generating an activation signal in response to detecting the sequence.

15. (CURRENTLY AMENDED) The method as claimed in claim 14, further comprising the step of transmitting the activation signal to a baseband stage ~~(304)~~ in the wireless station ~~(300)~~ to cause the baseband stage ~~(304)~~ to transition from a low power state to an active power state.

16. (CURRENTLY AMENDED) The method as claimed in claim 14, characterized in that the step of detecting the sequence in a RF stage ~~(302)~~ in the wireless station ~~(300)~~ comprises the step of detecting the sequence in a detector ~~(504)~~ in the RF stage ~~(302)~~ in the wireless station ~~(300)~~.

17. (CURRENTLY AMENDED) The method as claimed in claim 16, characterized in that the step of detecting the sequence in a detector ~~(504)~~ in the RF stage ~~(302)~~ in the wireless station ~~(300)~~ comprises the steps of: inputting the signal into a delay ~~(600)~~ for inserting a predetermined time delay into the signal; inputting the signal and the delayed signal into a correlator ~~(602)~~ for generating a correlated signal; and inputting the correlated signal into a peak detector ~~(604)~~ for detecting the sequence.

18. (CURRENTLY AMENDED) The method as claimed in claim 16, characterized in that the step of detecting the sequence in a detector ~~(504)~~ in the RF stage ~~(302)~~ in the wireless station ~~(300)~~ comprises the steps of: inputting the signal into a matched filter ~~(900)~~ having coefficients defined by the sequence; generating a match signal when the sequence is included in the signal; and inputting the match signal into a peak detector ~~(902)~~ to cause the peak detector to generate the activation signal in response to receiving the match signal from the matched filter ~~(900)~~.

19. (ORIGINAL) The method as claimed in claim 14, characterized in that the signal comprises a data frame including the sequence and the sequence comprises a Barker sequence.

20. (ORIGINAL) The method as claimed in claim 14, characterized in that the signal comprises a data frame including the sequence and the sequence comprises a sequence of OFDM symbols.